Summary of four Ocean Forecasting Models used in CI OSSE

	HOPS	NYHOPS	ROMS-COAWST	ROMS-Expresso
Tides	No	Yes; EC-2001	Yes: ADCIRC EC2001,V2E	Yes; ADCIRC
Horiozntal Resolution	15-km	50-m to 11-km	5-km	5-km
Vertical Coordinate and Layers	terrain-following; 16 layers	terrain-following; 10 layers, max depth of 200m	terrain-following; 16 layers	terrain-following; 36 layers
Lateral boundary condtion	GS ring and front analysis feature model, SST, and dynamic adjustment (Brown et al. 2007a,b)	ETSURGE subtidal water level; AHPS rivers; Levittus T/S monthly climatology; U.S. East Coast WaveWatch-III	HYCOM RTOFS, no rivers	1/12 deg HYCOM with NCODA; inflow from Hudson and Delaware rivers
Atmospheric forcing	GFS (0.5 deg)	NAM (12-km)	NAM(12km)+GFS(0.5deg) outside NAM domain	NAM (12-km)
When and how often forecast is issued?	Tuesday and Friday (if needed)	Daily	Daily	Daily
Forecast length	5-day	48-hour	24-hour	72-hour
Time when the output is available on OpenDAP (East coast time)	7pm	4am	3am	9:00am
Data assimilation method	Sequential Optimal Interpolation Brown et al. 2007a,b	Sequential Optimal Interpolation (operational in nowcast) and nudging (tested in forecast mode)	Nudging with a 20-day time scale	4DVAR strong contraint with a 3-day window
Data assimilated	SST, gliders	HF-Radar currents, ADCP currents, T/S from ship-borne and static sensors	NCEP RTOFS (HYCOM)	HF radar, SST
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